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ABSTRACT

Introduced by S.A. Kirk in the early 1950s, the term "learning disability" was intended to eliminate controversial psychological and neurological labels which had come to be applied to students with reading disabilities, but has itself generated much controversy. The four historical phases in remedial treatment of learning disabilities have included the ideology approach, the analysis of individual learning style (with corresponding rehabilitative treatment), the analysis of the task itself, and a correlation of the latter two phases. Present issues concerning the definition of learning disability include whether the definition ought to be psychometric ("underachievement") or clinical ("perceptual processing deficits"), and whether the diagnosis of learning disability ought to be restricted to students of average measured intelligence or better. Diagnosis should be a progressively analytic process in which assessments are time-efficient, procedures are based on the judgment of a competent diagnostician, and there is a built in provision for review. Teachers are needed with appropriate competencies to detect, diagnose, prescribe, and implement individual corrective and remedial programs, with adequate support available. (DF)

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Overview of learning disabilities:

retrospect and prospect

John McLeod

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I have just arrived back from Czechoslovakia, which is in the midst of celebrating the anniversary of the "liberation" of Prague by the Red Army. To people of my generation, the significance of the overthrow of Nazism in 1945 is obvious, but I wondered out loud in Prague just what effect, if any, do the banners proclaiming an event which took place 34 years ago have on younger people who have lived totally within the post-war situation.

It has occurred to me that there is something of an analogous situation in the field of learning disabilities. Just as most Czechs are younger than 34, so most teachers have been teaching for fewer than 16 years, and it is probable that many of them assume that "learning disabilities" have always been with us. They have of course, at least since the introduction of universal compulsory education, but "learning disability" as a technical term was introduced only in 1953, by Sam Kirk, to an Illinois parents' group which was looking for a term to describe their reading disabled, dyslexic, neurologically disorganized, minimal brain damaged, perceptually handicapped, etc., etc., children.

In the 1950s and early '60s reading -- and more especially reading difficulties -- began to be described in progressively sophisticated terms. We had a spectrum of theoretical models to explain the causes of reading disability, ranging from a sophisticated psychological "sub-strata" theory, through psycholinguistics (a "wedding of insufficiencies" according to Osgood) to a whole gamut of neurological and pseudo-neurological theories, and we had disputations between the supporters and detractors of "neurological organizations", "minimal cerebral dysfunction", "psycho-neurological deficiencies", "neuro-psychological deficiencies", etc., etc.

To his everlasting glory (or at least for 10 or 12 years), Sam Kirk cut across the argumentation by declaring that we should stop acting like amateur neurologists. As professional educators, we are primarily concerned with <u>learning</u>, and so a perfectly accurate description of children who are unable to learn at the rate which their general level of intelligence suggests they should, have a <u>learning disability</u>.

It is ironic that this perfectly neutral, reasonable and accurate description, introduced to eliminate controversial labels, has itself become a label -- and a controversial label too!

One of the phenomena of the 1960s in the U.S. was the remarkable mushrooming of children recognized as having learning disabilities. At the individual level many middle class parents whose children were experiencing problems in learning to read, realized that they were by no means alone and that it was not something to be ashamed of. At a community level, the term "learning disability" provided an acceptable umbrella term under which the countless organizations, with their countless titles which were concerned with such children, could come together, as the Association for Children with Learning Disabilities.

This middle-class organization was, and is, highly articulate and has proved an effective political lobby. In his inaugural address in 1967, Ray Barsch, the first president of the CEC Division for Children with Learning Disabilities, likened the current situation to the California gold rush, and it was patently obvious to many of us who were already prospecting along the trail, that among the new adventurers on the bandwagon there were some who were only too ready to offer instant, universal cures. Hallahan and Cruickshank have alluded to the instant experts who became "learning disability consultants" in school units after a three weeks course from university faculty who, probably, had themselves no practical experience with learning disabled children. It was the late Margaret Mead who referred to the U.S. as a "Fixit Society" i.e. a society that is not prepared to tolerate, nor adjust to, leaking faucets, pain, or reading disability. Take a pill, jump a trampoline, cut out food additives, but <u>fix it</u>!

So we have been treated, and are still treated, to a parade of panaceas. Two or three years ago, Barbara Bateman traced four historical phases in remedial treatment of learning disabilities:

(i) ideology approach (e.g. Doman & Delacato, Kephart), and

(ii) analysis of the individual's learning style, with corresponding rehabilitative treatment (e.g. perceptual training based on Frostig, ITPA, etc.)

(iii) analysis of the task itself (e.g. operant conditioning, precision teaching)

(iv) a mesh or co-ordination of phases (ii) and (iii).

In 1977, Robert Sieben, a Californian consultant in pediatric neurology, wrote a thought-provoking article in <u>Academic Therapy</u>, entitled "Controversial medical treatments of learning disabilities", which could be superficially described as taking a swipe at Ayres (sensory integration), optometric training (Getman), Doman-Delacato (neurological organization), Feingold (food additives), Wunderlich (brain allergies), hypoglycemia, megavitamin therapy, trace minerals. But in the course of the article, he makes three very valid observations:

(1) A theory is not proven because someone writes a book about it ("A book is a very one-sided affair").

(2) There is a danger that medically based "treatment" might become an easy way out of an educational problem for the school.

(3) The burden of proof is on the <u>promoter</u> of a new theory. Too many innovative promoters accuse the medical or educational "establishment" of a conspiracy. But the "conspiracy" is usually a demand that he test his own theory.

Sieben's article represents one example of the (inevitable) backlash against the learning disability bandwagon. Some backlash is inevitable, given (a) a "fixit" society and (b) treatments that achieve less than perfect results. One of the more publicized examples of backlash in the popular media was Diane Divoky's full page feature article in the New York Times.

Within the educational profession itself, reaction or backlash to remediation of learning disabilities through perceptual training has come from Lester Mann, and from Don Hammill and his associates. Both have attacked remedial approaches based on what Bateman would have described as the second phase of development of treatment for learning disabilities, i.e. by analyzing an individual's perceptual abilities, and retraining where weak. The theory, faith or rationale underlying perceptual training is that

(1) There does exist a stable, definable perceptual ability (e.g. ability to distinguish figure from ground).

(2) This ability can be measured reliably and validly.

(3) If weak, the perceptual ability can be improved through remedial training, and

(4) This improvement in perceptual ability is accompanied by a positive payoff, i.e. there is transfer to more academically marketable skills such as reading, spelling or arithmetic.

Mann's criticism was essentially against the first two links in the argument i.e. whether there is any such thing as perception. He believes that "perception" is no more meaningful than the discredited "faculties" of the early nineteenth century psychology. Hammill, on the other hand, has attacked the third and fourth stages of the rationale, i.e. he accepts the existence of perceptual skills, but doubts the effectiveness of training them. Hammill has based his case on a search of the experimental literature, from which he has concluded that research evidence has been essentially negative.

At this stage, I have to point out that some of us question Hammill's conclusions. In the first place, there have been studies that have shown that, for example, the reading ability of children with deficits in auditory discrimination has improved after remediation geared to improve the weakness. The research reviewed by Hammill has, in fact, been re-analyzed by Foster et al., who came to quite different conclusions. Esther Minskoff, in a rebuttal of Hammill, put it rather succinctly:

> It is preposterous to state that the construct underlying a psycholinguistic area (such as understanding what is heard) is not related to school or social functioning. Rather, the way in which the construct is measured ... or the way it is trained by a particular

remedial method may not be related to academic or social learning.

She listed, in a 1975 article in Exceptional Children 15 criteria by which to evaluate remediation, and on which most of the research cited by Hammill was weak.

So, what is the present state of the art? A general survey might seem to suggest that things are in total disarray, with different people doing their own thing, whether it be perceptual training, psycho-pharmacological treatment, operant conditioning, or whatever. But I am a compulsive optimist and believe that, although we may appear at times to be going around in circles, the circles are really spiralling so that our knowledge is increasing and that our techniques are slowly becoming more refined. Maybe I can illustrate that there might, after all, be order beneath the surface of apparent chaos, from results of some experimental work which led to the publication of my Dyslexia Schedule. Originally, this parental questionnaire was designed to check out empirically some of the alleged symptoms of dyslexia, minimal cerebral dysfunction or similar categorical labels which clinicians claimed were significant. The result of analysis of our own clinical data was that some twenty items proved to be statistically significant. The discriminating items appear to be a heterogeneous collection. For example, they include reaction to early hospitalization, overactivity, short memory span and difficulties with right/left orientation.

But Zangwill, an acknowledged authority on brain function has stated that it is what he terms the "cerebral ambilaterals", i.e. those children who have not achieved lateral dominance who are particularly subject to stress, while Pasamanick and Knobloch in Chicago have suggested that it is children with "some brain injury, with a consequent lowering of thresholds to stress" who are affected by hospitalization during infancy.

There thus appears to be at least the possibility of a connection between right/left orientation problems and reaction to early hospitalization in infancy. And again, short immediate memory span and overactivity might be concomitant symptoms of a short attention span.

It could probably be said that all current areas of disputation come back, in one way or another to the definition of learning disability. Because, if different people define learning disabilities differently, they are going to look for it in different ways. And, in turn, anybody who defines learning disabilities as a perceptual processing deficit (as does Cruickshank) the treatment they prescribe is likely to be different from that prescribed by someone who regards learning disability as simply the lower end of the continuum of reading ability.

So, what are the major issues presently concerning definition of learning disabilities?

(1) Ought definition to be psychometric ("underachievement" or clinical ("perceptual processing deficits")?

(2) Ought the diagnosis of "learning disabled" be restricted to students of average measured intelligence or better, or is learning disabilities possible at any ability level?

1. Psychometric versus clinical?

The answer to this question depends on the purpose of the definition. If the purpose is to award funds for the treatment of learning disabilities in a way which is seen to be equitable, or to carry out research which can be replicated, then a psychometric definition is not only acceptable, but arguably essential. On the other hand, if the purpose of the definition, or diagnosis, is for the purpose of individual treatment, then mere assessment of IQ, achievement, and the difference between them is virtually useless and the diagnosis which includes at least initial prescribed remediation, has to be clinical.

2. Restricted to students of average measured IQ?

Currently, there seems to be a cleavage within the "l.d. movement" on the issue of whether mentally retarded children should be included. I think it is a fair assessment of the situation to say that parents in organizations such as ACLD are firmly against the inclusion of the mentally retarded, while to some (not to all, but I hope to most) professionals, it is totally incomprehensible that the neurological deficits that lead to learning disabilities should be produced by some sort of virus or jinx which first inquires as to the IQ of a particular brain before depositing its eggs, or whatever viruses and jinxes do.

The U.S. definition of learning disability specifically excludes children whose disability stems primarily from mental retardation or social deprivation, and could be considered a middle class definition. I believe that the ACLD, which is predominantly middle class, is afraid that if mentally retarded children were eligible to be considered as learning disabled, then facilities for the learning disabled would be swamped with a flood of mentally retarded children. As I have tried to show in an article to appear in the May issue of Journal of Learning Disabilities, this is totally incorrect.

If learning disability is defined (at least for the first purpose mentioned above) as a condition where basic educational achievement is significantly lower than that predicted by IQ (which is not the same as saying "significantly below IQ") then the incidence of mentally retarded in the learning disabled population would match the incidence of mental retardation in the general population -- i.e. about 2%.

So, if and when learning disability consultants and the ACLD are prepared to learn a bit more about psychometrics, I believe that issues concerning definition can become non-issues.

In conclusion, I propose to deal briefly with some current issues in treatment.

Alan Cohen would say -- and has said -- "teach 'em words if they can't read", and I believe that Lester Mann would agree with this stand. So would I, if it works. But what if good corrective treatment, i.e. remediation at the word level doesn't work? It seems to me self-evident that we have to dig deeper -- but where should we dig? Here is where disagreement begins, but I believe that the reading disability of a child for whom a corrective reading program is ineffective, is, in the majority of cases, a manifestation of a language or psycholinguistic deficiency. Hence, digging deeper into language-related skills, especially automatic skills, has a reasonable probability of being fruitful despite the current fashion to knock the ITPA and, to some extent hit indiscriminately language-based remediation. If, however, successful diagnosis (which includes prescription) still eludes us, then we have to consider other possibilities, including what some would consider "faddist". But, the less obvious the correlation between treatment and handicap, the greater the onus on the therapist to provide evidence of empirical validity.

So, once again the apparent conflicts of opinion concerning remediation are conflicts only if people are firmly and rigidly committed to one fixed idea. The conflicts resolve themselves if diagnosis and remediation are recognized as a process of progressive zeroing in on individual children's difficulties, and not an "either-or" disputation.

Psycho-educational diagnosis is, or should be, a progressively analytic process in which:

(a) assessments are efficient (i.e. relevant information per unit of time is maximized,

(b) procedures are decided on the judgement of a competent diagnostician(s), and

(c) there is inbuilt provision for review (because inevitably we will sometimes make wrong judgements).

Recently, I encountered for the first time Lester Tarnopol's book Learning Disorders in Children -- Diagnosis, Medication, Education. Tarnopol provides a case study on "Roy" who, in the course of diagnostic assessment, had a developmental history, a physical examination, a neurological examination (including two-point aesthesiometer), an EEG, X-ray examination, ophthalmological examination (Roy's vision is reported three times as being 20/20), a Bender-Gestalt, a WISC (without Coding), the Rorschach Blot Test, the PPVT, the ITPA, two forms of Ammons Quick Test, a visual perception battery, the Metropolitan Readiness test, the Metropolitan

Achievement test, Gray's Oral Reading test and Eisenson's Aphasia battery. (Incidentally, assessed IQs were: WISC Performance 140, WISC Full Scale 138, WISC Verbal 129, D-a-P 112, PPVT 104 and Ammons 88 and 135).

The diagnostic summary on Roy stated that, "based on his performance during this evaluation, a multiplicity of problems appear to be present ... indications of visual-perceptual, visual-motor and auditory perceptual difficulties. ...It was not possible to determine which teaching method is appropriate. However the need for a special education approach is indicated and diagnostic teaching after placement is made, should follow."

To my mind, this sort of allegedly diagnostic procedure is, at best, sad. We do not need huge batteries of tests (especially if the tests are indifferently applied) by strangers to the child. The principal need at the present and for the future, is an education profession in which teachers have acquired appropriate competencies to detect, diagnose, prescribe and implement individual corrective and remedial programs. This does not mean that every teacher has to be an in-depth specialist in special education but it does mean that all teachers must have some orientation and must have adequate back-up readily available. This is not pie-in-the-sky theory; we have three rural school units in Saskatchewan implementing such a plan, the blueprint for which is available in the Canadian 1970 SEECC Report.

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